Application No. Applicant(s) Index of Claims THOEDE ET AL 10/651,118 Examin r Art Unit Amy R Cohen 2859 (Through numeral) Cancelled R j ct d Non-El cted App al Α N 0 Restricted Objected Allowed Interference

| Cla         | aim      |  |          |          |                    | Da           | le                                     |  |  | $\neg$   | :::: | Cla          | im       |  |   | 1            | Date   | _   |          |          |       | Cla          | aim        |          |   |  | Da           | te                      |   |                 | $\neg$   |
|-------------|----------|--|----------|----------|--------------------|--------------|--|--|--|----------|------|--------------|----------|--|---|--------------|--|---|----------|----------|-------|--------------|------------|----------|---|--|--------------|-------------------------|---|-----------------|----------|
|             |          |  |          |          |                    | T            |  |  |  |          |      |              |          | Т  | Т   | T            |  |   |          | П        |       |              |            |          |   | Т  | Τ.           |                         | T                                       |                 | ᄀ        |
| ਰ           | Original | 5  | 2        | 1        | 1                  | 1            | 1                                      |  | H  |          | :::  | ā            | Original |  |   | 1            | 1  |   |          | ΙI       |       | ਰ            | Original   |          | 1   | -  |              |                         |   |                 |          |
| Final       | į        | 2  | 1        | ł        |                    | 1            |  |  |  |          |      | Final        | į        |  |   | 1            | 1  |   |          | ΙI       |       | Final        | . <u>ē</u> |          |   | 1  |              |                         |   |                 |          |
| -           | Ō        | 40/81/2  | 1/29/04  | 1        |                    |              |  |  |  |          |      | _            | Ő        |  |   |              |  |   |          |          |       | _            | Ŏ          |          |   |  |              |                         |   |                 |          |
|             | 1        |  | 7        | ╁        | +-                 | ╀╌           | +                                      | +-   |  | $\dashv$ |      |              | 51       | $\dashv$   | +   | +            | ╁╾┼  | +   |          | ┞╌┤      |       | -            | 101        | $\dashv$ | +   | +  | +            | +                       | +                                       |                 | $\dashv$ |
|             |          | +  | ₩        | ┝        | ┿                  | ┿            | ╫                                      | ╁╌   | <del>                                     </del> | $\dashv$ |      |              | 52       | $\dashv$   | +   | ╁            | $\vdash$   | +   | +-       | Н        |       |              | 102        | $\dashv$ | $\dashv$  | +  |              | +-                      | +-                                      |                 | $\dashv$ |
|             | 2        | H  | ₩        | ┡        | ╀                  | ┿            | ┼                                      | -  | ┨  | -        |      |              |          | $\dashv$   | +   | +            | $\vdash$   | +   |          | Н        |       |              |            | -+       |   | +  |              | +-                      | +-                                      | -               | 긕        |
|             | 3        | Н  | Н        | ⊢        | +                  | +            | ╀                                      | -  | H  | -        |      |              | 53       |  |   | +-           | <del></del> -                                    | +   |          | ╌┤       |       |              | 103        | -        |   | -+   | -            | ┥-                      | ╁                                       | $\vdash$        | ᅴ        |
|             | 4        | Н  | ₩        | ┡        | ╀-                 | ┼-           | -                                      | ـ  |  | _        |      |              | 54       | -+   |   | -            | -  | +   |          | Н        |       |              | 104        | _        | +   |  | -            | +-                      | -                                       | _               |          |
|             | 5        | Ц  | Н        | <u> </u> | -                  | <del> </del> | _                                      | <u> </u>                                     |  |          |      |              | 55       | _  |   | ┿            | $\sqcup$   | 4   |          | Ш        |       |              | 105        | -        | _   | -  |              | -                       | 1_                                      | _               |          |
| <u></u>     | 6        | Ц  | Щ        | ╙        | _                  | $\perp$      | ↓_                                     | <u> </u>                                     | Ш  |          |      |              | 56       | _  | _   | ┿            | $\sqcup$   | 4   |          | Щ        |       |              | 106        | _        |   |  | - -          | 4_                      | -                                       | _               | ᅬ        |
|             | 7        | Ц  | Н        | ┡        | 4                  | ╄            | ┺                                      | <u> </u>                                     | Ш  | $\Box$   |      |              | 57       | -  |   |              |  | 4   |          | Щ        |       |              | 107        | _        | _   | 4  | 4            | _                       | 1                                       | $\Box$          | _        |
|             | 8        | Ц  | Щ        | Ļ.       | 丄                  | <u> </u>     |  | <u> </u>                                     |  |          | -    |              | 58       |  | 4-  |              |  | 4   |          | Ш        |       |              | 108        | _        | _ _   | 4  | _ _          | 4                       |   |                 | _        |
|             | 9        | Ц  | Щ        | L        | $oldsymbol{\perp}$ | 1            | 1_                                     | <u> </u>                                     | Ш  |          |      |              | 59       | _  | ᆚ   |              | <del>     </del>                                 | Ц.  |          | Ш        |       |              | 109        | _        |   | $\perp$  | _ _          | 1                       |   |                 | _        |
|             | 10       | Ш  | Ц        | L        |                    |              | L                                      | $oxed{oldsymbol{oldsymbol{oldsymbol{eta}}}}$ | Ш  |          |      |              | 60       | $\perp$  |   |              |  | _   |          | Ш        |       |              | 110        | $\dashv$ |   | ᆚ  |              |                         | لــــــــــــــــــــــــــــــــــــــ |                 | _        |
|             | 11       | Ц  | Ц        | Ĺ        |                    | L            |  | L  | Ш  |          |      |              | 61       | $oldsymbol{ol}}}}}}}}}}}}}}}}$ |   |              | $\Box$   |   |          | Ш        |       |              | 111        | $\Box$   | _[_   |  |              | 1                       | ــــــــــــــــــــــــــــــــــــــ  |                 | _]       |
|             | 12       | $\prod$  | П        | L        |                    |              |  |  |  |          |      |              | 62       |  | $\perp$   |              |  |   |          |          |       |              | 112        |          |   | Ш  | $\bot$       |                         |   |                 |          |
|             | 13       | $\prod$  | $\prod$  | Ĺ        |                    | $\perp$      |  | L  | $\Box$   |          |      |              | 63       | $\Box$   | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ |              |  | floor   |          |          |       |              | 113        | $\Box$   | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | Ţ  | ╧            |                         |   |                 |          |
|             | 14       |  | П        |          |                    |              |  |  |  |          |      |              | 64       |  |   |              |  |   |          |          |       |              | 114        |          |   |  |              |                         |   |                 |          |
|             | 15       | $\prod$  | J        |          | $\prod$            | $oxed{\Box}$ | Γ                                      | $\Gamma$                                     |  |          |      |              | 65       |  | $\int$  | $oxed{oxed}$ |  |   |          |          |       |              | 115        | $\Box$   | T   | floor  |              |                         |   |                 |          |
|             | 16       | V  |          | 1        |                    |              |  |  |  |          |      |              | 66       |  | T   |              |  | 1   | $\Box$   |          |       |              | 116        |          | T   | T  |              | Τ                       | Π                                       |                 | $\Box$   |
|             | 17       |  |          | 1        | 1                  | T            | T                                      |  |  |          |      |              | 67       |  | $\neg$  |              |  | $\exists$   |          | П        |       |              | 117        | _        | $\neg$  | 7  | $\neg$       |                         | 1                                       |                 | П        |
|             | 18       | Г  | 1        | Τ        | ✝                  | $\top$       | T                                      | T  | П  | $\sqcap$ |      |              | 68       | $\dashv$   | $\top$  | ╁            | 1  | 十   | 1        | М        |       |              | 118        | 寸        | $\neg$  | 7  | $\top$       | $\top$                  | $\top$                                  | $\neg$          | $\neg$   |
| $\vdash$    | 19       |  | 1        | T        | 1                  | T            | T                                      | Т  | П  | $\Box$   |      |              | 69       | $\neg$   | $\dashv$  | 1            | 1  | +   | 7        | М        |       |              | 119        | 7        | 十   | $\top$   | +            | 1                       | 1                                       | $\dashv$        | $\dashv$ |
|             | 20       | $\vdash$   | 1        | T        | +                  | +            | +                                      |  | H  |          |      |              | 70       | +  | +   | +            | 1-1  |   | _        | H        |       |              | 120        | 7        | 1.  | 十  | +            | +                       | $\top$                                  |                 | $\dashv$ |
| $\vdash$    | 21       | $\vdash$   | +        | H        | +                  | +-           | +                                      | +  | $\vdash$   | $\vdash$ |      |              | 71       | $\dashv$   | ╅   | +            | 1-1  | +   |          | $\vdash$ |       |              | 121        | -        | $\dashv$  | ╅  | +            | +                       | $\top$                                  | $\vdash$        | $\dashv$ |
| $\vdash$    | 22       | Η.   | +-       | ┢        | +-                 | +-           | +-                                     | +  | +  | $\dashv$ |      |              | 72       | -+   | +   | +-           | 1-1  | +   | +-       | Н        |       |              | 122        | +        | $\dashv$  | +  | $\dashv$     | +                       | +                                       |                 | $\dashv$ |
| <u> </u>    | 23       | -  | †        | +-       | ╁                  | +-           | +                                      | +-   | $\vdash$   | $\dashv$ |      |              | 73       | -  | +   |              | ╁┼   | $\dashv$  |          | $\vdash$ |       |              | 123        | -        | $\dashv$  | +  | $\dashv$     | +                       | +                                       | $\vdash$        | $\dashv$ |
| <del></del> | 24       | -  | +-       | ╁        | +                  | +-           | +                                      | +-   | $\vdash$   | -        |      |              | 74       | -  | +   |              | ╁╌┼  | +   | -        | $\vdash$ |       |              | 124        | -+       |   | +  | +            | +-                      | +                                       | $\vdash$        | $\dashv$ |
| <del></del> | 25       | -  | +-       | $\vdash$ | +-                 | +            | ╁╌                                     | +-   |  |          |      |              | 75       | $\dashv$   | +   |              | ╁┼┼  | +   | +        | ┤┤       |       |              | 125        | $\dashv$ | $\dashv$  | +  | +            | +                       | +                                       | $\vdash$        | -        |
| <del></del> | 26       | $\vdash$   | ╁        | ╁        | +                  | +            | ╁                                      | ┼  |  | $\vdash$ |      |              | 76       | -  | +   | +-           | ╁╼┼  | +   | $\dashv$ |          |       |              | 126        | $\dashv$ | $\dashv$  | +  | +            | +                       | +                                       | $\vdash$        | $\dashv$ |
| <u> </u>    |          |  | +        | ╁        | +-                 | ╁            | +                                      | +-   | $\vdash$   | $\dashv$ |      |              | 77       |  | +   | +-           | +-+  | +   |          | $\dashv$ |       |              | 127        |          | +   | +  | +            | +-                      | +                                       | $\vdash$        |          |
| ⊢           | 27       | $\vdash$   | $\vdash$ | ╀        | -                  | +            | +-                                     |  | ╁╼┤  | $\dashv$ |      |              | 78       | -  | +   | +-           | ╁╌┼  | +   | +        | $\dashv$ |       | <b></b> -    | 128        |          | -+  | ┽  | +            | +-                      | +                                       | $\vdash \vdash$ | $\dashv$ |
| ┝           | 28       | _  | ₩        | ╄        | +-                 | +-           | ┼                                      | ├-   | $\vdash$   | Н        |      |              | 70       |  |   | +            | ╁┷┼  | +   |          | -        |       |              | 128        |          | -   |  | -            |                         | +                                       |                 | $\dashv$ |
| $\vdash$    | 29       | ⊢  | +-       | ╀        | +-                 | +-           | +                                      | ╁  | Н  | $\vdash$ |      |              | 79       | +  | +   | +-           | ╂╌┼  | +   |          |          |       |              | 129        |          | -   | -  | +            | +-                      | +                                       |                 | $\dashv$ |
| ├           | 30       | -  | ┼        | +        | +-                 | +-           | +                                      | $\vdash$                                     | $\vdash$   | Н        |      |              | 80       |  | +   |              | ╂╼╂  | +   |          | $\vdash$ |       |              | 130        | -        | -   | +  | +            | +-                      | +                                       |                 |          |
| <u> </u>    | 31       | <u> </u>   |          | ╀        | +-                 | +            | +                                      |  | Н  | Щ        |      |              | 81       | -  | 4-  | +-           | <del>                                     </del> | -4-   |          | H        |       | ļ            | 131        | _        |   | +  | +            |                         | +                                       | $\vdash$        |          |
|             | 32       | L  | _        | L        | ┿                  | 1            | +                                      | ╄  | Ш  | Ш        |      |              | 82       | $\vdash$   | -   | 4            | 1-1  | 4   |          |          |       |              | 132        |          | -   | 4  | 4            | +                       | ╀-                                      |                 |          |
| L           | 33       |  | $\perp$  | ┖        | <u> </u>           | 1            | $\perp$                                | L  | Ш  | Щ        |      |              | 83       |  | $\bot$  | 4_           | 11   | 4   |          |          |       |              | 133        | _        | _   | _  | 4            | 4_                      | 1_                                      |                 | _        |
| <u></u>     | 34       | L  | ↓_       | $\perp$  | $\bot$             | $\perp$      | $\perp$                                | $\vdash$                                     | Ш  | Ш        |      |              | 84       |  | $\bot$  | ╄-           | 1-1  | 4   | _        | Ш        |       |              | 134        | _        |   | 4  | 1            | 4_                      | 4                                       | $\square$       | _        |
| <u></u>     | 35       | _  | 1        | L        | 1_                 | 1            | _                                      | 1_   |  |          |      |              | 85       | 4  | 4   | $\downarrow$ | $\sqcup$   | 4   | $\bot$   | Ш        |       |              | 135        | _        | $\dashv$  | $\downarrow$                                   | $\perp$      | _                       | ↓_                                      | Ш               |          |
|             | 36       | L  | _        | _        | $\perp$            | 1_           | 1                                      | <u> </u>                                     |  |          |      |              | 86       | $\perp \perp$  |   | 1_           | $\sqcup$   |   | $\perp$  | Ш        |       |              | 136        | Ц        |   | $\perp$  | $\perp$      | $\perp$                 | 1_                                      | Ш               |          |
|             | 37       |  | L        | Ĺ        | $\perp$            | L            |  | L  |  |          |      |              | 87       |  |   |              |  | $\perp$   |          |          |       |              | 137        |          |   |  |              |                         |   |                 |          |
|             | 38       |  |          | Γ        |                    | I            |  |  |  |          |      |              | 88       | $\Box$   | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ |              |  | $oldsymbol{ol}}}}}}}}}}}}}}}$ |          |          |       |              | 138        |          | $oxed{oxed}$                                      | $oxed{\int}$                                   | $oxed{oxed}$ |                         |   |                 |          |
|             | 39       |  |          | Γ        |                    | $oxed{\Box}$ |  |  |  |          |      |              | 89       |  | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$ | $\perp$      |  | $\Box$  |          |          |       |              | 139        |          | $\perp I$   | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{I}}}$ |              |                         | $\perp$                                 |                 |          |
|             | 40       |  |          | Γ        | Π                  |              |  |  |  |          |      |              | 90       |  | T   | L            |  | $\Box$ T  |          |          |       |              | 140        |          |   |  |              | $\mathbf{I}$            |   |                 |          |
|             | 41       |  | Ι        | Τ        | Τ                  |              | $I^-$                                  |  |  |          |      | Ē            | 91       |  |   |              |  |   |          |          |       |              | 141        |          | $\Box$  |  |              | $oldsymbol{\mathbb{T}}$ |   |                 |          |
|             | 42       |  |          |          | Π                  | Τ            | Τ                                      |  |  |          |      |              | 92       |  |   | T            |  |   |          |          |       |              | 142        |          | $\Box$  | $\Box$   |              | $\Box$                  |   |                 |          |
|             | 43       | Γ  |          | Τ        | T                  | Т            |  |  | П  |          |      |              | 93       |  | $\neg$  | T            | П  |   | Т        |          |       |              | 143        |          |   | $\exists$                                      |              | Τ                       |   |                 |          |
|             | 44       | Г  | 1        | T        | Τ                  | +            | T                                      | Т  |  | П        |      |              | 94       | ١.   |   | $\top$       | $T^{\dagger}$                                    | $\dashv$  |          |          |       |              | 144        |          | $\neg$  | 寸  | 十            | ┰                       | $\top$                                  | П               |          |
|             | 45       | 1  | T        | T        | $\top$             | $\top$       | $\top$                                 | 1  | $\Box$   | П        |      | $\vdash$     | 95       | 1  | +   | 1            | $\Box$   | $\dashv$  |          | $\Box$   |       |              | 145        | $\dashv$ | $\dashv$  | 7  | 十            | 1                       | +                                       | П               | $\Box$   |
|             | 46       | <del>                                     </del> | t        | T        | +                  | +            | T                                      | +-   | П  | Н        |      | <u> </u>     | 96       | $\vdash$   | +   | +            | 1 1  | $\dashv$  |          | П        |       | <b></b>      | 146        | $\dashv$ | 1   | $\dashv$                                       | $\top$       | $\top$                  | +-                                      | Н               | $\vdash$ |
|             | 47       | H  | †        | †-       | +-                 | +            | +                                      | †  | $\vdash$   | Н        |      | $\vdash$     | 97       | -  | +   | +            | ╁┼   | +   | +        | Н        |       | <b></b>      | 147        | $\dashv$ | 十   | +  | 十            | +                       | +-                                      | Н               | $\Box$   |
| -           | 48       | $\vdash$   | 十一       | +        | ╁                  | ╁            | +-                                     | ╁  | $\vdash$   | Н        |      | <del> </del> | 98       | $\vdash$   | +-  | +            | ╁╾┼  | 十   | +        | $\vdash$ |       | $\vdash$     | 148        | $\dashv$ | +   | +  | +            | +                       | +                                       | Н               | $\vdash$ |
| <b>—</b>    | 49       | $\vdash$   | +-       | ✝        | +                  | +            | +                                      | +  | 1  | -        |      | $\vdash$     | 99       | $\vdash$   | +   | +            | ╅╌╅  | -+  | +-       | $\vdash$ |       | <del> </del> | 149        | -        | -+  | $\dashv$                                       | ┰            | +                       | +-                                      | Н               | $\vdash$ |
| <b>—</b>    | 50       | ┢  | ╁        | ╁        | +                  | +            | ╁                                      | +  | $\vdash$   | Н        |      |              | 100      | $\vdash$   | +   | +-           | ╁╾┼  | +   |          | ┝╌       |       | ├            | 150        |          | -+  | +  | +            | +                       | ╁                                       | Н               | -        |
|             | 1 20     | Щ.   | <u> </u> | ⊥.       |                    |              | _ـــــــــــــــــــــــــــــــــــــ | _  | ┖  | ш        | :::: | L            | 100      |  |   | _i           | Ш  |   | L_       | $\perp$  | :-:-: | L            | 130        | لللا     |   |  | _L           | _1_                     | 1                                       |                 |          |